ELSEVIER

International Journal of Mass Spectrometry

International Journal of Mass Spectrometry

www.elsevier.com/locate/ijms

Volume 271 Issues 1–3 **1 April 2008**

Contents

Yong-Ki Kim Honour Issue
Guest Editors: Kurt H. Becker, Hans Deutsch, Tilmann D. Märk

R-matrix calculations of low-energy electron alkane collisions
H.N. Varambhia, J.J. Munro and J. Tennyson (UK) 1

Absolute partial photoionization cross sections of ozone
J. Berkowitz (USA) 8

Dissociative electron attachment to nitromethane
E. Alizadeh, F. Ferreira da Silva, F. Zappa, A. Mauracher, M. Probst, S. Denifl, A. Bacher, T.D. Märk, P. Limão-Vieira and P. Scheier (Austria) 15

Relativistic effects on the ground state properties of group 1 and group 11 cyanides estimated from quantum chemical calculations
D.-K. Lee, I.S. Lim, Y.S. Lee and G.-H. Jeung (France, Republic of Korea) 22

Bromine iso-electronic sequence: Lifetimes of the $4p^4 4d\ ^4D_{7/2}$ metastable level
J.P. Desclaux (France) 30

Relative partial cross sections for anions formed upon electron attachment to nitrotoluene
A. Aleem, A. Mauracher, P. Sulzer, S. Denifl, F. Zappa, A. Bacher, N. Wendt, T.D. Märk and P. Scheier (Austria) 36

Theoretical calculation of the transition spectra of highly charged tungsten ions in the EUV region
Y.-J. Rhee and D.-H. Kwon (Republic of Korea) 45

Electron impact ionization of metastable rare gases: He, Ne and Ar
M.A. Ali and P.M. Stone (USA) 51

Calculated absolute cross-sections for the electron-impact ionization of atoms with atomic numbers between 20 and 56 using the Deutsch-Märk (DM) formalism
H. Deutsch, K. Becker and T.D. Märk (Austria, Germany, USA) 58

Calculated absolute cross sections for the electron-impact ionization of the lanthanide atoms using the Deutsch-Märk (DM) formalism
H. Deutsch, K. Becker, H. Zhang, M. Probst and T.D. Märk (Austria, Germany, USA) 63

(Contents continued on page I)

Abstracted/Contents in: Chem. Abstr.; Curr. Contents, Phys. Chem. Earth Sci.; Embase/Excerpta Medica; INSPEC; Mass Spectrom. Bull.; PASCAL/CNRS. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®

1387-3806(20080401)271:1/3;1-0

(Contents continued from outside back cover)

Electron-impact ionization of atomic ions in the Sn and Xe isonuclear sequences
S.D. Loch, M.S. Pindzola and D.C. Griffin (USA) **68**

Electron-impact excitations of the autoionizing states of bismuth
B.P. Marinković, D.M. Filipović, V. Pejčev and D. Šević (Serbia) **76**

Excitation of the lowest lying $^3B_1$, $^1B_1$, $^3A_2$, $^3A_1$ and $^1A_1$ electronic states in water by 15 eV electrons
M.J. Brunger, P.A. Thorn, L. Campbell, N. Diakomichalis, H. Kato, H. Kawahara, M. Hoshino, H. Tanaka and Y.-K. Kim (Australia, Japan) **80**

Multiconfiguration Dirac–Hartree–Fock energies and transition probabilities for $2p^4(^3_P)3d$–$2p^4(^3_P)4f$ transitions in Ne II
C. Froese Fischer and Y. Ralchenko (USA) **85**